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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,707	10/31/2003	Hironori Sumitomo	15162/06270	1922

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EXAMINER

ALLEN, STEPHONE B

ART UNIT PAPER NUMBER

2878

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,707

Applicant(s)

SUMITOMO ET AL.

Examiner

Stephone B. Allen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/06/06.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 and 23 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7, 8, 12-21, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-103791 to Eiji et al (Eiji) in view of U.S. Patent No. 6,600,509 to Radford et al (Radford).

With respect to claims 1, 2, Eiji discloses a counting system (Figures 1-4 and 7) for counting the number of passing objects (a person) in a path, comprising a light emitter for irradiating a line which extends along a width direction of the path with a slit ray (inherent as indicated by the slit lines A and B shown in the figures); a line data generator for generating one-dimensional line data (A and B) indicative of an irradiation state of the slit ray; a detection part (CCD1, CCD2) for detecting the passing objects on the basis of the one-dimensional line data; and a counter (Abstract) for counting the number of passing objects on the basis of the line data detected by the detection part.

Eiji is silent as to the inclusion of an image capturing part for photographing the line to obtain an image. Eiji and Radford are related as systems used in monitoring a path. Radford discloses a camera being used to image data from the path. It would

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have been obvious for one of ordinary skill in the art to modify Eiji to include a camera to photograph the line to obtain an image, and to further use that image for generate additional data, in order to more efficiently monitor the path with a visual representation.

With respect to claims 7, 8, 18,-21, 24 and 25, the modified Eiji discloses (Figure 2) an interruption data generator for comparing said line data with reference data indicative of a state of the line when the slit ray is not interrupted and generating one-dimensional interruption data indicative of a position in which the slit ray is interrupted on said line, wherein the counter counts the number of the passing objects on the basis of the interruption data (Abstract).

With respect to claims 12 and 13, the modified Eiji fails to disclose wherein the line is photographed in predetermined time cycles and the interruption data is generated in the predetermined time cycles from images obtained by the photographing and a display for displaying the time-series images. It would have been obvious for one of ordinary skill in the art to further modify Eiji to time cycle the images in order to more accurately determine if and when an object has crossed path being monitored. It would further be obvious to display this data in order to provide a visual output.

With respect to claims 16 and 17, the method claimed is inherent to the counting system of claims 1 and 2.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eiji et al in view of Radford et al as applied to claims 1 and 2 above, and further in view of JP 07-044674 to Frey et al (Frey).

The modified Eiji discloses all of the features as discussed above.

The modified Eiji is silent as to the ray being an invisible ray. Frey and Eiji are related as systems used in monitoring a path. Frey discloses the use of infrared rays to monitor the path. It would have been obvious for one of ordinary skill in the art to modify the system of Eiji to use infrared rays as disclosed in Frey in order to monitor the path discretely.

Allowable Subject Matter

Claims 3-6 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 22 and 23 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose, either singly or in combination, a counting system wherein the line data generator selects a statistical representative value from values of pixels of each pixel column arranged in a second direction orthogonal to a first direction corresponding to a direction of said line in the image, and sets said statistical representative value as a value of a pixel in the line data in the same position as each pixel column.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephone B. Allen whose telephone number is 571-272-2434. The examiner can normally be reached on M-F 08:30-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephone B Allen
Primary Examiner
Art Unit 2878

sba